

## CLAIM AMENDMENTS

Claims 1 - 8 (cancelled).

1 9. (currently amended) An apparatus for liberating  
2 oxygen isotopes from an oxygen-containing solids comprising:

3 a vacuum-tight quartz glass housing;

4 a graphite crucible and in said housing an induction  
5 heating source in said housing capable of heating an oxygen-  
6 containing solid in said crucible to a temperature at which oxygen  
7 in said solids react with carbon of said crucible to form CO or  
8 CO<sub>2</sub>; and

9 a vacuum pump connected to said housing.

Claim 10 (cancelled).

1 11. (Previously amended) The apparatus according to  
2 claim 9 which comprises means for capturing gaseous CO or CO<sub>2</sub>  
3 arising from the induction heating of the solids in said crucible.

1 12. (currently amended) The apparatus according to  
2 claim 10 9 wherein the housing of quartz glass is provided with  
3 means for cooling the housing.

1           13. (currently amended) The apparatus according to  
2        claim 10 9 wherein the housing of quartz glass can be opened on  
3        opposite sides to replace the solid and the graphite crucible  
4        containing the solid.

5           14. (currently amended) The apparatus according to  
6        claims 13 wherein the graphite crucible is elongated whereby at and  
7        has an upper end and a lower end said lower end being provided with  
8        a cavity is provided which can receive a rod with which the  
9        graphite cuvette can be mounted in- the housing.

Claims 15 to 17, (cancelled) .

1           18. (currently amended) An apparatus for liberating  
2        oxygen isotopes from a solid, comprising:

3                an elongated quartz-glass evacuable vacuum-tight  
4        housing connectable to a vacuum pump and having an outlet;  
5                an elongated graphite crucible having a cavity at one end  
6        and a bore at an opposite end, said cavity receiving a sample of  
7        said solid;

8           a rod received in said bore for inserting said crucible  
9        into said housing and positioning said cuvette in said housing;

10           a cooling jacket surrounding said housing and provided  
11        with an inlet and an outlet for passing a cooling liquid through  
12        said jacket;

13           an induction coil surrounding said housing for induction  
14        heating of said crucible and said solid to gradually raise a  
15        temperature of said solid to initially drive impurities therefrom  
16        and then decompose said solid to liberate oxygen therefrom whereby  
17        said oxygen combines with graphite carbon to form a gas comprising  
18        carbon oxides; and

19           a duct for admitting a carrier gas to said housing  
20        whereby said gas containing oxygen liberated from said solid carbon  
21        oxides is entrained in said carrier gas through said outlet to a  
22        spectrometer for isotope analysis.